## Amendments to the Claims

The following Listing of Claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (original): A method of extracting from an input image a graphical bar code containing graphically encoded information, comprising:

matching to the input image a document template selected from a set of document templates each having a respective predetermined page layout corresponding to a respective document type and including a predetermined graphical bar code location; and

cropping the input image based on information relating to the graphical bar code location in the page layout of the document template matched to the input image to produce a cropped graphical bar code candidate for decoding.

Claim 2 (original): The method of claim 1, wherein matching comprises sub-sampling the input image to generate a reduced-resolution thumbnail of the input image.

Claim 3 (original): The method of claim 2, wherein matching comprises binarizing the thumbnail of the input image.

Claim 4 (original): The method of claim 3, wherein the thumbnail of the input image is binarized in accordance with an image-dependent thresholding process.

Claim 5 (currently amended): The method of claim 4, wherein the target image is binarized in accordance with a Kittler-Illingworth image-dependent/adaptive thresholding process.

Claim 6 (original): The method of claim 3, wherein matching comprises matching the binarized thumbnail of the input image to binary images representative of document templates.

Claim 7 (original): The method of claim 6, wherein each document template in the set is represented by multiple binary images each representing a different orientation of the corresponding document template, and the binarized thumbnail of the input image is matched to each of the binary images representative of each of the document templates.

Claim 8 (original): The method of claim 6, wherein matching comprises computing respective measures of similarity between the binarized thumbnail of the input image and the binary images representative of document templates.

Claim 9 (original): The method of claim 8, wherein matching comprises identifying a candidate document template determined mostly likely to match the input image based on the computed similarity measures.

Claim 10 (original): The method of claim 9, wherein the candidate document template is selected as the matching document template based on a comparison of a threshold to the computed measure of similarity between the binarized thumbnail of the input image and the binary image representative of the candidate document template.

Claim 11 (original): The method of claim 8, wherein similarity measures are computed by convolving matched filters generated based on each of the binarized sub-sampled images representative of document templates with the binarized thumbnail of the input image.

Claim 12 (original): The method of claim 6, wherein cropping the input image comprises mapping position coordinates of a graphical bar code location in an image corresponding to the binary image matched to the thumbnail of the input image to position coordinates in the input image.

Claim 13 (original): The method of claim 1, wherein matching comprises identifying the document type and orientation of the selected document template.

Claim 14 (original): The method of claim 1, wherein each document template in the set is represented by multiple corresponding representative images.

Claim 15 (original): The method of claim 14, wherein each of the multiple images represents a different orientation of the corresponding document template.

Claim 16 (original): The method of claim 1, wherein the graphical bar code corresponds to a base image modulated with a graphical encoding of information.

Claim 17 (original): The method of claim 1, further comprising acquiring sample images representative of respective document templates in the set.

Claim 18 (original): The method of claim 17, further comprising sub-sampling images representative document templates to generate a respective reduced-resolution thumbnail of the sample images.

Claim 19 (original): The method of claim 18, further comprising binarizing the thumbnails of the sample images.

Claim 20 (original): The method of claim 19, further comprising generating from each sample image multiple binarized thumbnails corresponding to different respective orientations of the corresponding document template.

Claim 21 (original): A system for extracting from an input image a graphical bar code containing graphically encoded information, comprising:

a document template matching module operable to match to the input image a document template selected from a set of document templates each having a respective predetermined page layout corresponding to a respective document type and including a predetermined graphical bar code location; and

a cropping module operable to crop the input image based on information relating to the graphical bar code location in the page layout of the document template matched to the input image to produce a cropped graphical bar code candidate for decoding.

Claim 22 (original): The system of claim 21, wherein the document template matching module is operable to sub-sample the input image to generate a reduced-resolution thumbnail of the input image.

Claim 23 (original): The system of claim 22, wherein the document template matching module is operable to binarize the thumbnail of the input image.

Claim 24 (original): The system of claim 23, wherein the thumbnail of the input image is binarized in accordance with an image-dependent thresholding process.

Claim 25 (original): The system of claim 23, wherein the document template matching module is operable to match the binarized thumbnail of the input image to binary images representative of document templates.

Claim 26 (original): The system of claim 25, wherein the document template matching module is operable to compute respective measures of similarity between the binarized thumbnail of the input image and the binary images representative of document templates.

Claim 27 (original): The system of claim 26, wherein the document template matching module is operable to identify a candidate document template determined mostly likely to match the input image based on the computed similarity measures.

Claim 28 (original): The system of claim 27, wherein the candidate document template is selected as the matching document template based on a comparison of a threshold to the computed measure of similarity between the binarized thumbnail of the input image and the binary image representative of the candidate document template.

Claim 29 (original): The system of claim 26, wherein similarity measures are computed by convolving matched filters generated based on each of the binary images representative of document templates with the binarized thumbnail of the input image.

Claim 30 (original): The system of claim 25, wherein the cropping module is operable to map position coordinates of a graphical bar code location in an image corresponding to the binary image matched to the thumbnail of the input image to position coordinates in the input image.

Claim 31 (original): A computer program for extracting from an input image a graphical bar code containing graphically encoded information, the computer program residing on a computer-readable medium and comprising computer-readable instructions for causing a computer to:

match to the input image a document template selected from a set of document templates each having a respective predetermined page layout corresponding to a respective document type and including a predetermined graphical bar code location; and

crop the input image based on information relating to the graphical bar code location in the page layout of the document template matched to the input image to produce a cropped graphical bar code candidate for decoding.